

What is claimed is:

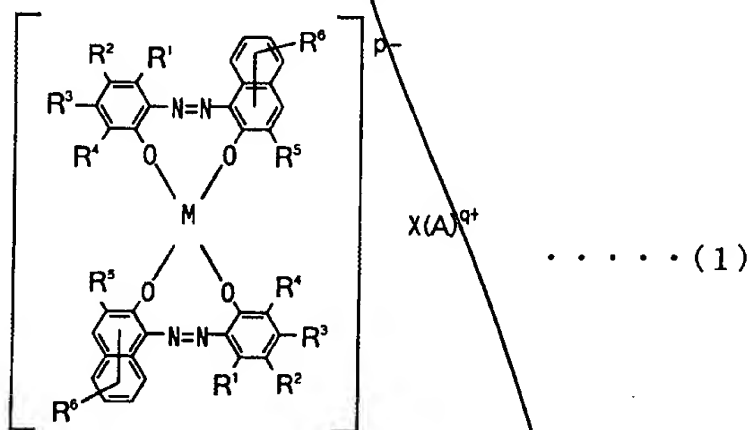
1. Monoazo metal complex compound containing composition, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

2. Monoazo metal complex compound containing composition of Claim 1 wherein said skin sensitization potential test is a skin sensitization potential test based on the maximization method.

3. Monoazo metal complex compound containing composition of Claim 1 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

4. Monoazo metal complex compound containing composition of Claim 2 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

5. Monoazo metal complex compound containing composition of any of Claims 1, 2, 3 or 4 wherein said monoazo metal complex compound is a compound of the following formula (1):

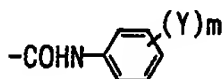


wherein each of R<sup>1</sup> through R<sup>4</sup> and R<sup>6</sup> independently represents a hydrogen atom, a normal or branched alkyl group having 1 to 18 carbon atoms, a normal

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A-1  
CMX  
or branched alkenyl group having 2 to 18 carbon atoms, a sulfonamide group, a mesyl group, a sulfonic acid group, a hydroxy group, an alkoxy group having 1 to 18 carbon atoms, an acetylamino group, a benzoylamino group, a halogen atom, or  $-\text{COO}-\text{R}^7$ ;

5  $\text{R}^7$  represents a normal or branched alkyl group having 1 to 18 carbon atoms or an aryl group having 6 to 18 carbon atoms;

$\text{R}^5$  represents a hydrogen atom, a halogen atom, a nitro group, a carboxyl group, a normal or branched alkyl group having 1 to 18 carbon atoms, an alkenyl group having 2 to 18 carbon atoms, an alkoxy group having 1 to 18 carbon atoms, an aryl group having 6 to 18 carbon atoms,  $-\text{COO}-\text{R}^8$  or



$\text{R}^8$  represents a normal or branched alkyl group having 1 to 18 carbon atoms or an aryl group having 6 to 18 carbon atoms;

Y represents a hydrogen atom, a normal or branched alkyl group having 1 to 8 carbon atoms, an alkoxy group having 1 to 5 carbon atoms, a nitro group, or a halogen atom;

m represents an integer from 1 to 3;

M represents a divalent or trivalent metal;

p represents 1 or 2;

20  $(\text{A})^{q+}$  represents  $\text{H}^+$ ,  $\text{NH}_4^+$ , a cation based on an alkali metal, a cation based on an organic amine, or a quaternary organic ammonium ion;

q represents 1 or 2; and

X represents 1 or 2.

6. Monoazo metal complex compound containing composition of Claim 5

wherein  $R^2$  in Formula (1) above is Cl;

each of  $R^1$  and  $R^3$  through  $R^5$  is a hydrogen atom;

$R^6$  is a hydrogen atom or a normal or branched alkyl group having 1 to 18 carbon atoms;

5 M is Cr, Fe, or Cu; and

(A)<sup>q+</sup> is H<sup>+</sup>.

7. Method for producing a monoazo metal complex compound containing composition which comprises a step for removing impurity substances using an alcoholic organic solvent, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

8. Method for producing the monoazo metal complex compound containing composition of Claim 7 wherein said skin sensitization potential test is a skin sensitization potential test based on the maximization method.

9. Method for producing the monoazo metal complex compound containing composition of Claim 7 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

10. Method for producing the monoazo metal complex compound containing composition of Claim 8 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

11. Method for producing the monoazo metal complex compound containing composition of Claim 7, 8, 9 or 10 wherein said alcoholic organic solvent is one member or a mixture of two or more members selected from the group consisting of methanol, ethanol, 1-propanol, 2-propanol, n-butanol,

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cont ethylene glycol, propylene glycol monomethyl ether and ethylene glycol  
monoethyl ether.

12. Method for producing a monoazo metal complex compound containing composition which comprises a step for synthesizing a monoazo metal complex compound in an alcoholic organic solvent, and a step for removing impurity substances from the product of the synthetic step using an alcoholic organic solvent, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

13. Method for producing the monoazo metal complex compound containing composition of Claims 12 wherein said skin sensitization potential test is a skin sensitization potential test based on the maximization method.

14. Method for producing the monoazo metal complex compound containing composition of Claims 12 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

15. Method for producing the monoazo metal complex compound containing composition of Claims 13 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

16. Method for producing the monoazo metal complex compound containing composition of Claim 12, 13, 14 or 15 wherein said alcoholic organic solvent is one member or a mixture of two or more members selected from the group consisting of methanol, ethanol, 1-propanol, 2-propanol, n-butanol, ethylene glycol, propylene glycol monomethyl ether and ethylene glycol monoethyl ether.

17. Method for producing a monoazo metal complex compound containing composition which comprises a step for synthesizing a monoazo metal complex compound in an alcoholic organic solvent, and a step for removing impurity substances by directly filtering a reaction mixture containing the product  
5 obtained by the synthetic step, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

18. Method for producing the monoazo metal complex compound containing composition of Claims 17 wherein said skin sensitization potential test is a skin sensitization potential test based on the maximization method.

10 19. Method for producing the monoazo metal complex compound containing composition of Claims 18 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

20 20. Method for producing the monoazo metal complex compound containing composition of Claims 19 wherein the purity of said monoazo metal complex compound is not less than 90% as determined by high performance liquid chromatography.

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20 21. Method for producing the monoazo metal complex compound containing composition of Claim 17, 18, 19 or 20 wherein said alcoholic organic solvent is one member or a mixture of two or more members selected from the group consisting of methanol, ethanol, 1-propanol, 2-propanol, n-butanol, ethylene glycol, propylene glycol monomethyl ether and ethylene glycol monoethyl ether.

22. Charge control agent comprising a monoazo metal complex compound  
25 containing composition, the incidence of skin sensitization in a skin

sensitization potential test of said composition being not more than 20%.

23. Toner for developing electrostatic images which contains a charge control agent comprising a monoazo metal complex compound containing composition, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

24. Coloring agent containing the monoazo metal complex compound containing composition, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

25. Colored thermoplastic resin composition containing the monoazo metal complex compound containing composition as a coloring agent, the incidence of skin sensitization in a skin sensitization potential test of said composition being not more than 20%.

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TOTAL 6542860

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